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EXAMINER	
NORTON, JENNIFER L	
ART UNIT	**PAPER NUMBER**
2121	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/823,465	RED ET AL.	
	Examiner	Art Unit	
	Jennifer L. Norton	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-12,14-23 and 25-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-12,14-23 and 25-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a **Non-Final Office Action** in response to the Request for Continued Examination filed on 9 January 2007. Claims 1, 11 and 22 have been amended. Claims 3, 13 and 24 have been cancelled. Claims 1, 2, 4-12, 14-23 and 25-31 are pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 4-12, 14-23 and 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No.: 6,499,054 (hereinafter Hesslink) in view of U.S. Patent No.: 6,028,412 (hereinafter Shine).

4. As per claim 1, Hesslink teaches to a method for controlling electronic devices through a host device, the method comprising:

establishing real-time (col. 2, lines 10-12 and col. 9, lines 60-64) electronic communications over a network (col. 3, lines 37-38, 41-43 and 67, col. 4, lines 1-10 and Fig. 1A, element 62, i.e. "GPIB, RS-232, PCI, USB, Ethernet, etc." and Fig. 1A,

element "the cable connection between element 62 and 60") between the host device (Fig. 1A, element 60) and a controlled device (col. 3 lines 37-38 and 41-43 and Fig. 1A, element 64);

generating, at the host device, control input for the controlled device (abstract, lines 1-4 and col. 3, lines 24-26 and 37-38); and

sending the control input to the controlled device (abstract, lines 1-4 and col. 3, lines 24-26 and 37-38).

Hesslink does not expressly teach to frequency-based electronic communications, wherein electronic communication between the host device and the controlled device always occurs at an assigned control frequency, assigning the control frequency for the controlled device using a 2^N time slicing algorithm, where N is a non-negative integer, wherein each control frequency that is assigned has a value of 2^n and sending the control input to the controlled device at the assigned control frequency.

Shine teaches to frequency-based (col. 1, lines 62-65 and col. 2, lines 12-26), real-time electronic communications (col. 7, lines 8-13), wherein electronic communication between an apparatus and the controlled device always occurs at an assigned control frequency (col. 3, lines 18-25), assigning the control frequency for the controlled device using a 2^N time slicing algorithm, where N is a non-negative integer, wherein each control frequency that is assigned has a value of 2^n (col. 1, lines 62-65

and col. 2, lines 12-26) and sending the control input to the controlled device at the assigned control frequency (col. 3, lines 21-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to include frequency-based electronic communications, wherein electronic communication between the host device and the controlled device always occurs at an assigned control frequency, assigning the control frequency for the controlled device using a 2^N time slicing algorithm, where N is a non-negative integer, wherein each control frequency that is assigned has a value of 2^n and sending the control input to the controlled device at the assigned control frequency to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22); in addition to being implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

5. As per claim 2, Hesslink as set forth above teaches receiving at the host device, output from the controlled device in response to the control input (col. 3, line 67 and col. 4, lines 1-14).

6. As per claim 3, Hesslink as set forth above teaches establishing real-time (col. 2, lines 10-12) electronic communications over a network (col. 3, lines 41-50, 67, col. 4, lines 1-10 and Fig. 1A, elements 62).

7. As per claim 4, Hesslink as set forth above teaches to establishing real-time electronic communications (col. 2, lines 10-12) with a plurality of controlled devices (Fig. 1A elements 64 and 70).

8. As per claim 5, Hesslink does not expressly teach N is independently determined for each controlled device of the plurality of the controlled devices.

Shine teaches N is independently determined for each controlled device of the plurality of the controlled devices (col. 2, lines 12-26).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to include N is independently determined for each controlled device of the plurality of the controlled devices to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22) in addition to being implemented very

cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

9. As per claim 6, Hesslink does not expressly teach the 2^N time slicing algorithm comprises assigning the control frequency at 2^N hertz, where N is a non-negative integer that will yield a discrete control frequency in proximity to a preferred control frequency of the controlled device.

Shine teaches to the 2^N time slicing algorithm comprises assigning the control frequency at 2^N hertz, where N is a non-negative integer that will yield a discrete control frequency in proximity to a preferred control frequency of the controlled device (col. 1, lines 62-65 and col. 2, lines 12-26).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to the 2^N time slicing algorithm comprises assigning the control frequency at 2^N hertz, where N is a non-negative integer that will yield a discrete control frequency in proximity to a preferred control frequency of the controlled device to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22); in

addition to being implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

10. As per claim 7, Hesslink as set forth above teaches initiating a control loop process on the host device when electronic communication is established with a controlled device (col. 3, line 67, col. 4, lines 1-14 and Fig. 1B, elements 100, 110, 112 and 120).

11. As per claim 8, Hesslink as set forth above teaches accessing the host device from a remote computing device (Fig. 1B, element 118) via the Internet (col. 3, lines 6-8 and Fig. 1B, element 50).

12. As per claim 9, Hesslink as set forth above teaches providing information relating to the controlled device to a user at the remote computing device (col. 4, lines 11-14 and Fig. 1B, element 118).

13. As per claim 10, Hesslink as set forth above teaches receiving user input at the host device from the user at the remote computing device, wherein the input relates to the controlled device (col. 4, lines 16-18 and Fig. 1B, element 114).

14. As per claim 11, Hesslink teaches to a computing device configured for controlling electronic devices, the computing device comprising:

a processor (col. 3, lines 8-12);

memory in electronic communication with the processor (col. 3, lines 8-11); and

executable instructions executable by the processor (col. 3, lines 25-27), wherein the executable instructions are configured to implement a method comprising:

establishing real-time (col. 2, lines 10-12 and col. 9, lines 60-64) electronic communications over a network (col. 3, lines 37-38, 41-43 and 67, col. 4, lines 1-10 and Fig. 1A, element 62, i.e. "GPIB, RS-232, PCI, USB, Ethernet, etc." and Fig. 1A, element "the cable connection between element 62 and 60") between the computing device (Fig.1A, element 10 and 60) and a controlled device (col. 3, lines 37-38 and 41-43 and Fig. 1A, element 64);

generating, at the computing device, control input for the controlled device (abstract, lines 1-4 and col. 3, lines 24-26 and 37-38); and

sending the control input to the controlled device at the assigned control frequency (abstract, lines 1-4 and col. 3, lines 24-26 and 37-38).

Hesslink does not expressly teach frequency-based electronic communications, wherein electronic communication between the computing device and the controlled device always occurs at an assigned control frequency, assigning the control frequency for the controlled device using a 2^N time slicing algorithm, where N is a non-negative

integer, wherein each control frequency that is assigned has a value of 2^n and sending the control input to the controlled device at the assigned control frequency.

Shine teaches to frequency-based (col. 1, lines 62-65 and col. 2, lines 12-26), real-time electronic communications (col. 7, lines 8-13), wherein electronic communication between the computing device and the controlled device always occurs at an assigned control frequency (col. 3, lines 18-25), assigning the control frequency for the controlled device using a 2^N time slicing algorithm, where N is a non-negative integer, wherein each control frequency that is assigned has a value of 2^n (col. 1, lines 62-65 and col. 2, lines 12-26) and sending the control input to the controlled device at the assigned control frequency (col. 3, lines 20-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to include frequency-based electronic communications, wherein electronic communication between the computing device and the controlled device always occurs at an assigned control frequency, assigning the control frequency for the controlled device using a 2^N time slicing algorithm, where N is a non-negative integer, wherein each control frequency that is assigned has a value of 2^n and sending the control input to the controlled device at the assigned control frequency to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is

represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22); in addition to being implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

15. As per claim 12, Hesslink as set forth above teaches the method further comprises receiving, at the computing device, output from the controlled device in response to the control input (col. 3, line 67 and col. 4, lines 1-14).

16. As per claim 13, Hesslink as set forth above teaches establishing electronic communications comprises establishing real-time (col. 2, lines 10-12) electronic communications over a network (col.3, lines 41-50, 67, col. 4, lines 1-10 and Fig. 1A, elements 62).

17. As per claim 14, Hesslink as set forth above teaches the method further comprises establishing real-time (col. 2, lines 10-12) electronic communications with a plurality of controlled devices (Fig. 1A, elements 64 and 70).

Hesslink does not expressly teach assigning a discrete control frequency for each controlled device using the 2^N time slicing algorithm, where N is a non-negative integer.

Shine teaches to assigning a discrete control frequency for a controlled device using the 2^N time slicing algorithm, where N is a non-negative integer (col. 1, lines 62-65 and col. 2, lines 12-26).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to include assigning a discrete control frequency for each controlled device using the 2^N time slicing algorithm, where N is a non-negative integer to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22); in addition to being implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

18. As per claim 15, Hesslink does not expressly teach N is independently determined for each controlled device of the plurality of controlled devices.

Shine teaches N is independently determined for each controlled device of the plurality of controlled devices (col. 2, lines 12-26).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to include N is independently determined for each controlled device of the plurality of the controlled devices to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22); in addition to being implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

19. As per claim 16, Hesslink does not expressly teach the 2^N time slicing algorithm comprises assigning the control frequency at 2^N hertz, where N is a non-negative integer that will yield a discrete control frequency in proximity to a preferred control frequency of the controlled device.

Shine teaches to the 2^N time slicing algorithm comprises assigning the control frequency at 2^N hertz, where N is a non-negative integer that will yield a discrete control frequency in proximity to a preferred control frequency of the controlled device (col. 1, lines 62-65 and col. 2, lines 12-26).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of the invention to modify the teaching of Hesslink to the 2^N time slicing algorithm comprises assigning the control frequency at 2^N hertz, where N is a non-negative integer that will yield a discrete control frequency in proximity to a preferred control frequency of the controlled device to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22); in addition to being implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

20. As per claim 17, Hesslink as set forth above teaches initiating a control loop process on the computing device when electronic communication is established with a controlled device (col. 3, line 67, col. 4, lines 1-14, Fig. 1B and elements 100, 110, 112 and 120).

21. As per claim 18, Hesslink does not expressly teach initiating a torque/current control loop process at a microcontroller on the controlled device when the controlled device comprises a motor.

Shine teaches to initiating a torque/current control loop process at a microcontroller on the controlled device when the controlled device comprises a motor (col. 3, lines 18-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to include initiating a torque/current control loop process at a microcontroller on the controlled device when the controlled device comprises a motor because the method is well suited to governing motor speeds and in particular for controlling stepper motors, including full step, half step and micro-steppers. Similarly, the speed of a DC motor can be regulated with this method by providing the controlling frequency that governs the rotational speed of the armature (Shine: col. 3, lines 35-41). In addition the method can be implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

22. As per claim 19, Hesslink as set forth above teaches accessing the computing device from a remote computing device (Fig.1B, element 118) via the Internet (col. 3, lines 6-8 and Fig. 1B, element 50).

23. As per claim 20, Hesslink as set forth above teaches providing information relating to the controlled device to a user at the remote computing device (col. 4, lines 11-14 and Fig. 1B, element 118).

24. As per claim 21, Hesslink as set forth above teaches the method further comprises receiving user input at the computing device from the user at the remote computing device, wherein the input relates to the controlled device (col. 4, lines 16-18 and Fig. 1B, element 114).

25. As per claim 22, Hesslink teaches to a computer-readable medium for storing program data, wherein the program data comprises executable instructions for implementing a method in a computing device for controlling electronic devices, the method comprising:

establishing real-time (col. 2, lines 10-12 and col. 9, lines 60-64) electronic communications over an network (col. 3, lines 37-38, 41-43 and 67, col. 4, lines 1-10 and Fig. 1A, element 62, i.e. "GPIB, RS-232, PCI, USB, Ethernet, etc." and Fig. 1A, element "the cable connection between element 62 and 60") between the computing device (Fig. 1A, element 60) and a controlled device (col. 3, lines 37-38 and 41-43; and Fig. 1A, element 64);

generating, at the computing device, control input for the controlled device (abstract, lines 1-4 and col. 3, lines 24-26 and 37-38); and

sending the control input to the controlled device (abstract, lines 1-4 and col. 3, lines 24-26 and 37-38).

Hesslink does not expressly teach frequency-based electronic communication, wherein electronic communication between the computing device and the controlled device always occurs at an assigned control frequency, assigning the control frequency for the controlled device using a 2^N time slicing algorithm, where N is a non-negative integer, wherein each control frequency that is assigned has a value of 2^n and sending the control input to the controlled device at the assigned control frequency.

Shine teaches to frequency-based (col. 1, lines 62-65 and col. 2, lines 12-26), real-time electronic communication (col. 7, lines 8-13), wherein electronic communication between the computing device and the controlled device always occurs at an assigned control frequency (col. 3, lines 18-25), assigning the control frequency for the controlled device using a 2^N time slicing algorithm, where N is a non-negative integer, wherein each control frequency that is assigned has a value of 2^n (col. 1, lines 62-65 and col. 2, lines 12-26) and sending the control input to the controlled device at the assigned control frequency (col. 3, lines 21-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to include frequency-based

electronic communication, wherein electronic communication between the computing device and the controlled device always occurs at an assigned control frequency, assigning the control frequency for the controlled device using a 2^N time slicing algorithm, where N is a non-negative integer, wherein each control frequency that is assigned has a value of 2^n and sending the control input to the controlled device at the assigned control frequency to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22); in addition to being implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

1. As per claim 23, Hesslink as set forth above teaches the method further comprises receiving, at the computing device, output from the controlled device in response to the control input (col. 3, line 67 and col. 4, lines 1-14).

2. As per claim 24, Hesslink as set forth above teaches establishing real-time (col. 2, lines 10-12) electronic communications over a network (col. 3, lines 41-50, 67, col. 4, lines 1-10 and Fig. 1A, elements 62).

3. As per claim 25, Hesslink as set forth above teaches to establishing real-time (col. 2, lines 10-12) electronic communications with a plurality of controlled devices (Fig. 1A, elements 64 and 70).

Hesslink does not expressly teach to assigning a discrete control frequency for each controlled device using the 2^N time slicing algorithm, where N is a non-negative integer.

Shine teaches to assigning a discrete control frequency for a controlled device using the 2^N time slicing algorithm, where N is a non-negative integer (col. 1, lines 62-65 and col. 2, lines 12-26).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to include assigning a discrete control frequency for each controlled device using the 2^N time slicing algorithm, where N is a non-negative integer to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22); in addition to being implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

4. As per claim 26, Hesslink does not expressly teach N is independently determined for each controlled device of the plurality of controlled devices.

Shine teaches N is independently determined for each controlled device of the plurality of the controlled devices (col. 2, lines 12-26).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to include N is independently determined for each controlled device of the plurality of the controlled devices to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22); in addition to being implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

5. As per claim 27, Hesslink does not expressly teach the 2^N time slicing algorithm comprises assigning the control frequency at 2^N hertz, where N is a non-negative integer that will yield a discrete control frequency in proximity to a preferred control frequency of the controlled device.

Shine teaches to the 2^N time slicing algorithm comprises assigning the control frequency at 2^N hertz, where N is a non-negative integer that will yield a discrete control frequency in proximity to a preferred control frequency of the controlled device (col. 1, lines 62-65 and col. 2, lines 12-26).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teaching of Hesslink to the 2^N time slicing algorithm comprises assigning the control frequency at 2^N hertz, where N is a non-negative integer that will yield a discrete control frequency in proximity to a preferred control frequency of the controlled device to simplify the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set (Shine: col. 2, lines 15-22); in addition to being implemented very cheaply on commercially available integrated circuits and embedded controllers (Shine: col. 3, lines 45-48).

6. As per claim 28, Hesslink teaches as set forth above the method further comprises initiating a control loop process on the computing device when electronic communication is established with a controlled device (col. 3, line 67, col. 4, lines 1-14 and Fig. 1B, elements 100, 110, 112 and 120).

7. As per claim 29, Hesslink as set forth above teaches accessing the computing device from a remote computing device (Fig. 1B, element 118) via the Internet (col. 3, lines 6-8 and Fig. 1B, element 50).

8. As per claim 30, Hesslink as set forth above teaches providing information relating to the controlled device to a user at the remote computing device (col. 4, lines 11-14 and Fig. 1B, element 118).

9. As per claim 31, Hesslink as set forth above teaches receiving user input at the computing device from the user at the remote computing device, wherein the input relates to the controlled device (col. 4, lines 16-18 and Fig. 1B, element 114).

Response to Arguments

10. Applicant's arguments see Remarks pgs. 9-10, filed 9 January 2007 with respect to claims 1-31 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

11. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Shine discloses (col. 2, lines 15-22) "This simplifies the comparison between the stored trigger value and the stored accumulator value as the binary value of the stored trigger value is represented by a single bit in a register being set and exceeding the trigger value is also represented by a single bit being set." and (col. 3, lines 45-48) "The present invention is very efficient i.e. fast and compact, and can be implemented very cheaply on commercially available integrated circuits and embedded controllers."

12. Applicant argues that the prior art fails to teach, "real-time". The examiner respectfully disagrees.

Hesslink discloses (col. 2, lines 10-12), "Users that are connected to computer works such as the internet can perform tasks such as controlling devices and processes in real time."

(col. 9, lines 60-64) "The user interface may include animated switches, dials, buttons, and LED displays rather than traditional browser forms. Online graphing of the real time data along with other customized user interface components allows users to experience a hands-on look and feel."

In addition, Shine discloses (col. 7, lines 8-13), "By varying the value r either directly or indirectly through the accelerate loop, the method of the present invention will accelerate, maintain and decelerate to any frequency up to the implementation dependent maximum and such information as position or frequency can be reported in real time."

Furthermore, the Specification does not define/equate "real-time" to mean "instantaneous time". The Examiner has interpreted real-time as defined by the Specification (pgs. 4-5, par. [0052]), "That is, for real-time device control, the time it takes to transmit data over the distance between the host device and the controlled device 306 needs to be fast enough to meet the real-time constraints of the system." Hence, both Hesslink and Shine disclose real-time communication as defined by the Applicant's Specification.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to a system for transmitting data from one computing device to other devices.

U.S. Patent No. 2006/0195203 discloses a system and method for simulating a stress or failure in a network of a plurality of simulated networked program logic controllers.

U.S. Patent No. 6,452,681 discloses an optical spectrum analyzer (OSA) comprising a tree-structure of N-stage wavelength filters or "wavelength slicer" which "slice" the incident optical signal into desired groupings of individual sliced spectral components, each along a different output optical fiber.

U.S. Patent No. 7,126,937 discloses a wireless local access network includes a hierarchy of access points and mobile devices in a communication network based on a time division approach.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer L. Norton whose telephone number is 571-272-3694. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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